

BT
D1
concord

[inflammation, emphysema, neoplasm,] atherosclerosis, cardiovascular disease, [cirrhosis of the liver,] diabetes, retinopathy, cataract formation, Parkinson's disease, Alzheimer's disease, Huntington's disease, [ALS] amyotrophic lateral sclerosis, 21 trisomy, and hypertension, wherein the method comprises administering a replication defective, recombinant adenovirus comprising a DNA sequence which encodes a superoxide dismutase that is capable of regulating superoxide dismutase activity, wherein the DNA sequence is under the control of a signal enabling expression in a target cell, to a patient suffering from such a disease.

Please add the following claims:

sub D2

61. The method of treatment according to claim 47, wherein the DNA sequence is a cDNA sequence.

62. The method of treatment according to claim 61, wherein the cDNA sequence encodes human intracellular CuZn superoxide dismutase.

63. The method of treatment according to claim 47, wherein the signal enabling expression in a target cell is a viral promoter.

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64. The method of treatment according to claim 63, wherein the promoter is selected from the group consisting of the E1A, MLP, CMV and RSV-LTR promoters.

65. The method of treatment according to claim 47, wherein the adenovirus lacks regions of its genome which are necessary for replication in a target cell.

66. The method of treatment according to claim 47, wherein the adenovirus comprises ITR sequences and an encapsidation sequence, and wherein the E1 gene and at least one of the E2, E4 or L1-L5 genes are non-functional.

67. The method of treatment according to claim 47, wherein the adenovirus is of a type selected from the group consisting of human Ad 2, human Ad 5, and canine CAV-2.

sub D3

68. The method of treatment according to claim 62, wherein the cDNA sequence encodes human intracellular CuZn superoxide dismutase (SOD1) under the control of an RSV-LTR promoter.

69. The method of treatment according to claim 47, wherein the disease is retinopathy.

70. The method of treatment according to claim 47, wherein the disease is cataract formation.

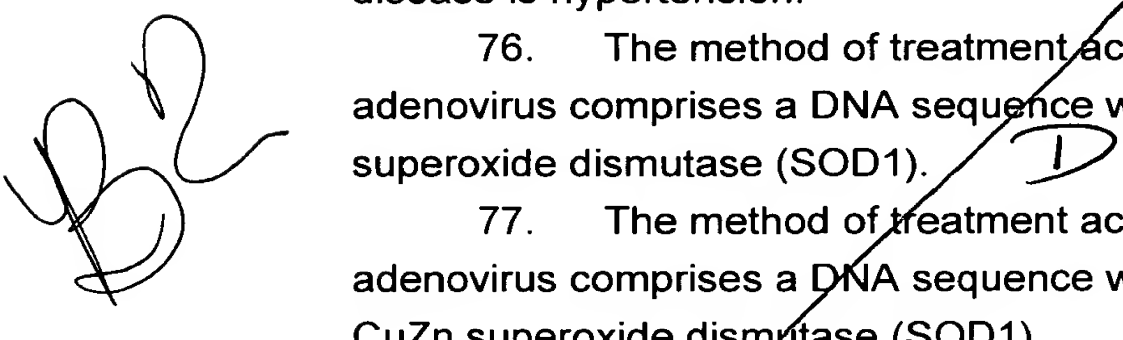
71. The method of treatment according to claim 47, wherein the disease is Parkinson's disease.

72. The method of treatment according to claim 47, wherein the disease is Alzheimer's disease.

73. The method of treatment according to claim 47, wherein the disease is Huntington's disease.

74. The method of treatment according to claim 47, wherein the disease is amyotrophic lateral sclerosis.

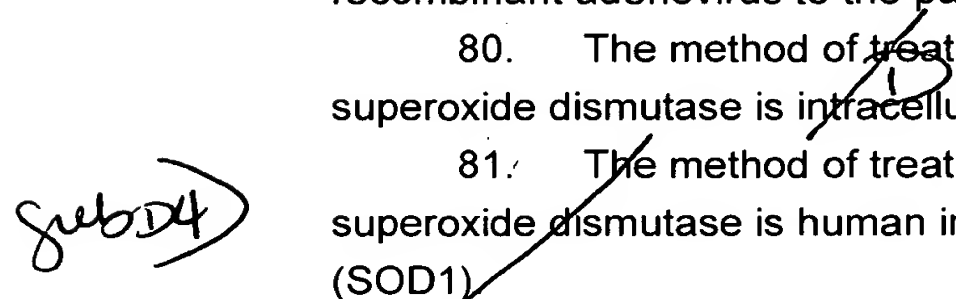
75. The method of treatment according to claim 47, wherein the disease is hypertension.

76. The method of treatment according to claim 47, wherein the adenovirus comprises a DNA sequence which encodes intracellular CuZn superoxide dismutase (SOD1). 

77. The method of treatment according to claim 47, wherein the adenovirus comprises a DNA sequence which encodes a human intracellular CuZn superoxide dismutase (SOD1).

78. The method of treatment according to claim 47, wherein the signal enabling expression in a target cell is a promoter permitting preponderant expression in the target cell.

79. The method of treatment according to claim 47, wherein the method comprises administering a cell infected with the replication defective, recombinant adenovirus to the patient.

80. The method of treatment of any one of claims 69-75, wherein the superoxide dismutase is intracellular CuZn superoxide dismutase (SOD1). 

81. The method of treatment of any one of claims 69-75, wherein the superoxide dismutase is human intracellular CuZn superoxide dismutase (SOD1).

82. The method of treatment of any one of claims 69-75, wherein the adenovirus comprises ITR sequences and an encapsidation sequence, and wherein the E1 gene and at least one of the E2, E4 or L1-L5 genes are non-functional.
